



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,572	10/30/2000	Nikolai Grigoriev	25310-1B	8706

21186 7590 01/05/2006

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH  
1600 TCF TOWER  
121 SOUTH EIGHT STREET  
MINNEAPOLIS, MN 55402

EXAMINER

SINGH, RACHNA

ART UNIT PAPER NUMBER

2176

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/699,572

Applicant(s)

GRIGORIEV, NIKOLAI

Examiner

Rachna Singh

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06/28/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This application is responsive to communications: Amendment filed 06/28/05.
2. Claims 1-20 are pending. Claims 1, 8, and 15 are independent claims.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao et al., US 5,883,635, 3/16/99 (filed 11/15/96) in view of Chatterjee et al., US 6,584,476 B1, 6/24/03 (filed 4/22/00).

In reference to claim 1, Rao teaches producing a single-image view of a multi-image table using graphical representations of the table data. Rao teaches the following:

-Receiving a table having comprised of rows and columns. See column 1, lines 50-67.

The intersection of the row and column is a cell. The information in the table reaching portions beyond a single cell because of the large amount of information. See column

2. The cells of the table arranged in a plurality of rows and columns. See column 7, lines 38-55. Compare to ***“receiving a table having one or more cells wherein each cell spans one or more columns and one or more rows”***.

-Representing a table in an n-dimensional array data structure where the positional relationship of data arranged by rows and columns conveys information about the data.

See column 5, lines 60-67 and column 6. Compare to ***“representing the table as a geometric grid wherein one or more positions within the grid house one or more of the cells.”***

-Receiving an image display request from a user interaction device. The request including a request for an operation and information identifying the requested operation. The processor receiving the request configured to access the data store in memory and the instruction indicating instructions for the operating system. Displaying the table in a virtual screen or presentation space for a window. See columns 28-29. Compare to ***“providing a generic table represented by one or more formatting commands operable to provide a rendering of the grid to one or more output media’.***

Rao does not state the use of “formatting commands to provide a rendering of the grid”; however, he does teach receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a “formatting command” as Rao teaches that the user can request certain actions to indicate some sort of operation be performed on the data as would a formatting command. See columns 28-29.

Rao does not teach that each cell is assigned a “synchronization marker” or that the table is configurable; however, Chatterjee does. A user can choose to delete a row from a database table or modify the structure of the table. See column 22, lines 47-50 and column 28, lines 64-67. Compare to ***“wherein the size of the generic table is***

**configurable**". Chatterjee teaches a version control system in which a database table comprising fields includes a synchronization value in record versions to indicate that two records are synchronized. See column 18, lines 36-51 and figure 2. Chatterjee's synchronization value indicates when the values in records are similar so that if a record is later modified, then two record versions are synchronized by determining whether the synchronization values in the field are the same. Compare to **"wherein each cell is assigned a synchronization marker"**. Chatterjee further teaches allowing a user to make changes to the design and update the database with the changes. See column 2, lines 20-54. Chatterjee's version control subsystem determines when two record versions in two states are synchronized by determining whether the synchronization values in the field are the same. If the synchronization values are the same, then any modifications made to a record are associated with each record that is synchronized. See column 21, lines 1-20. Compare to **"when the grid is rendered to one or more output media each cell having a same synchronization marker are processed together as an independent group"**. The newly claimed limitation **"wherein the cells are processed in a sequential order defined by their corresponding synchronization marker to render the grid"** is taught by Chatterjee in that cells with similar synchronization markers are processed together and in order of the "state hierarchy". See columns 13, lines 15-42 and column 14, lines 54-67 where Chatterjee discusses performing updates in a correct order in view of the tables. It would have been obvious to a person of ordinary skill in the art at the time of the invention to enhance Rao's system of producing a single-image view of a multi-image table using

graphical representations of table data with Chatterjee's teaches of synchronization among different records because it would help facilitate associations with different records in the database, allow conflicts between records to be resolved while providing an efficient means to unify records or cells with similar data. See abstract of Chatterjee.

In reference to claim 2, Rao teaches representing a table in an n-dimensional array data structure where the positional relationship of data arrange by rows and columns conveys information about the data. See column 5, lines 60-67 and column 6.

In reference to claim 3, Rao teaches displaying the table in a virtual screen or presentation space for a window or to the area for printing or facsimile transmission. See columns 28-29.

In reference to claims 5-6, Rao teaches representing the table in an n-dimensional array data structure which could be a rectangle or two-dimensional array.

In reference to claim 7, Rao does not state the use of "formatting commands to provide a rendering of the grid"; however, he does teach receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed.

In reference to claim 8, Rao teaches producing a single-image view of a multi-image table using graphical representations of the table data. Rao teaches the following:

-Receiving a table having comprised of rows and columns. See column 1, lines 50-67. The intersection of the row and column is a cell. The information in the table reaching

Art Unit: 2176

portions beyond a single cell because of the large amount of information. See column

2. The cells of the table arranged in a plurality of rows and columns. See column 7,

lines 38-55. Compare to ***“decoupling one or more cells from a table” and***

***“expressing a dimension associated with each cell in terms of each cell’s relative position to each other within the matrix”.***

-Representing a table in an n-dimensional array data structure where the positional

relationship of data arrange by rows and columns conveys information about the data. .

See column 5, lines 60-67 and column 6. An n-dimensional array is a matrix. Compare to ***“storing the cells in a matrix.”***

-Receiving an image display request from a user interaction device. The request

including a request for an operation and information identifying the requested operation.

The processor receiving the request configured to access the data store in memory and

the instruction indicating instructions for the operating system. Displaying the table in a

virtual screen or presentation space for a window. See columns 28-29. Compare to

***“outputting one ore more formatting commands operable to produce a rendition of the table on a output media from the matrix”.***

Rao does not state the use of “formatting commands to provide a rendering of the grid”; however, he does teach receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a “formatting command” as Rao teaches that the user can request certain actions to

indicate some sort of operation be performed on the data as would a formatting command. See columns 28-29.

Rao does not teach that each cell is assigned a "synchronization marker" or that the table is configurable; however, Chatterjee does. A user can choose to delete a row from a database table or modify the structure of the table. See column 22, lines 47-50 and column 28, lines 64-67. Chatterjee teaches a version control system in which a database table comprising fields includes a synchronization value in record versions to indicate that two records are synchronized. See column 18, lines 36-51 and figure 2. Chatterjee's synchronization value indicates when the values in records are similar so that if a record is later modified, then two record versions are synchronized by determining whether the synchronization values in the field are the same. Compare to **"associating a synchronization marker with each cell"**. Chatterjee further teaches allowing a user to make changes to the design and update the database with the changes. See column 2, lines 20-54. Chatterjee's version control subsystem determines when two record versions in two states are synchronized by determining whether the synchronization values in the field are the same. If the synchronization values are the same, then any modifications made to a record are associated with each record that is synchronized. See column 21, lines 1-20. Compare to **"wherein each of the one or more formatting commands are processed to render the rendition against a same group of cells that have a same synchronization marker"**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to enhance Rao's system of producing a single-image view of a multi-image table using



Art Unit: 2176

graphical representations of table data with Chatterjee's teaches of synchronization among different records because it would help facilitate associations with different records in the database, allow conflicts between records to be resolved while providing an efficient means to unify records or cells with similar data. See abstract of Chatterjee.

In reference to claims 9-10 and 14, Rao teaches receiving an image display request from a user interaction device. The request including a request for an operation and information identifying the requested operation. The processor receiving the request configured to access the data store in memory and the instruction indicating instructions for the operating system. Displaying the table in a virtual screen or presentation space for a window. See columns 28-29. Rao further teaches does teach receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed (i.e. processing vertically, in parallel).

In reference to claim 11, Rao teaches representing a table in an n-dimensional array data structure where the positional relationship of data arrange by rows and columns conveys information about the data. See column 5, lines 60-67 and column 6.

In reference to claims 12-13, Rao teaches receiving an image display request from a user interaction device. The request including a request for an operation and information identifying the requested operation. The processor receiving the request configured to access the data store in memory and the instruction indicating instructions for the operating system. Displaying the table in a virtual screen or presentation space for a window. See columns 28-29. Rao further teaches does teach receiving an image

display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed, such as configuring the output or adjusting dimensions.

In reference to claim 15, Rao teaches producing a single-image view of a multi-image table using graphical representations of the table data. Rao teaches the following:

-Receiving a table having comprised of rows and columns. See column 1, lines 50-67. The intersection of the row and column is a cell. The information in the table reaching portions beyond a single cell because of the large amount of information. See column 2. The cells of the table arranged in a plurality of rows and columns. See column 7, lines 38-55.

-Representing a table in an n-dimensional array data structure where the positional relationship of data arrange by rows and columns conveys information about the data. See column 5, lines 60-67 and column 6. Compare to ***“representing one or more cells of a table”***

-Receiving an image display request from a user interaction device. The request including a request for an operation and information identifying the requested operation. The processor receiving the request configured to access the data store in memory and the instruction indicating instructions for the operating system. Displaying the table in a virtual screen or presentation space for a window. See columns 28-29. Compare to ***“. . .with one or more executable commands wherein each command has one or more parameters defining an outputted cell's dimensions on an output media”***

Rao teaches that the request including a request for an operation and information identifying the requested operation. The processor receiving the request configured to access the data store in memory and the instruction indicating instructions for the operating system. Displaying the table in a virtual screen or presentation space for a window. See columns 28-29. Rao does not state the use of “formatting commands to provide a rendering of the grid”; however, he does teach receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a “formatting command” as Rao teaches that the user can request certain actions to indicate some sort of operation be performed on the data as would a formatting command. See columns 28-29.

Rao does not teach that each cell is assigned a “synchronization marker” or that the table is configurable; however, Chatterjee does. A user can choose to delete a row from a database table or modify the structure of the table. See column 22, lines 47-50 and column 28, lines 64-67. Chatterjee teaches a version control system in which a database table comprising fields includes a synchronization value in record versions to indicate that two records are synchronized. See column 18, lines 36-51 and figure 2. Chatterjee’s synchronization value indicates when the values in records are similar so that if a record is later modified, then two record versions are synchronized by determining whether the synchronization values in the field are the same. Compare to **“associating with each cell a synchronization marker”**. Chatterjee further teaches

Art Unit: 2176

allowing a user to make changes to the design and update the database with the changes. See column 2, lines 20-54. Chatterjee's version control subsystem determines when two record versions in two states are synchronized by determining whether the synchronization values in the field are the same. If the synchronization values are the same, then any modifications made to a record are associated with each record that is synchronized. See column 21, lines 1-20. Rao teaches receiving an image display request in which the user request can comprise of any number of actions the user considers necessary for indicating a valid request and causing an operation to be performed (i.e. processing vertically, in parallel). Compare to ***"executing commands in parallel to produce a rendition of the table on the output media, and wherein each command processed in parallel to produce the rendition processes against cells in a same group associated with a same synchronization marker"***. It would have been obvious to a person of ordinary skill in the art at the time of the invention to enhance Rao's system of producing a single-image view of a multi-image table using graphical representations of table data with Chatterjee's teaches of synchronization among different records because it would help facilitate associations with different records in the database, allow conflicts between records to be resolved while providing an efficient means to unify records or cells with similar data. See abstract of Chatterjee.

In reference to claims 4 and 18, Rao does not teach that the table or first format is in XSL. However, XSL data can comprise a table, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have the table be in a XSL

format as XSL was a well-known format for representing style and content of data at the time of the invention.

Claims 16-17 and 19 are rejected under the same rationale used in claims 7, 2, and 3 respectively above.

In reference to claim 20, Rao teaches representing a table in an n-dimensional array data structure where the positional relationship of data arrange by rows and columns conveys information about the data. See column 5, lines 60-67 and column 6. Thus the data structure has different dimensions than the table.

### ***Response to Arguments***

5. Applicant's arguments and amendments submitted on 06/28/05 have been fully considered.

The previous office action dated 06/28/05 was a non-final office action. The "final action" box on the PTOL-326 was inadvertently checked; however, the action was recorded as a non-final action for official purposes.

Applicant argues the interpretation of the term "synchronization" from the Chatterjee reference is outside the scope of the invention. Applicant's amended claims to recite "wherein the cells are processed in a sequential order defined by their corresponding synchronization marker to render the grid". The synchronization marker is related to the processing order to produce a single and same table or grid. Chatterjee teaches determining when two record versions in two states are synchronized by determining whether the synchronization values in the field are the same. If they are the same, the modifications made to a record are associated with each record that is

synchronized. The newly claimed limitation “wherein the cells are processed in a sequential order defined by their corresponding synchronization marker to render the grid” is taught by Chatterjee in that cells with similar synchronization markers are processed together and in order of the “state hierarchy”. See columns 13, lines 15-42 and column 14, lines 54-67 where Chatterjee discusses performing updates in a correct order in view of the tables.

In view of the comments above, the rejection is maintained.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2176

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh whose telephone number is 571-272-4099. The examiner can normally be reached on M-F (8:30AM-6:00PM). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RS  
12/28/05

*William L. Bashore*  
**WILLIAM BASHORE**  
**PRIMARY EXAMINER**  
*1/3/2006*